

(1) Twelve persons completely supported the proposed rulemaking. These included several ichthyologists and biology professors who felt it was a valid species and did need protection. Also among these were several concerned citizens decrying the possible destruction of the species which is threatened by the Tellico Dam.

(2) There were three letters opposing the listing of the snail darter as "endangered," none of which was relevant to the biological evaluation.

(3) A letter and attached appendices were received from the Tennessee Valley Authority, the agency sponsoring the construction of Tellico Dam. The Tennessee Valley Authority is opposed to listing the snail darter as an Endangered species. Quoted below are the specific objections raised by TVA in their extensive comments and appendices:

1. Listing of this fish would have no valid basis since the taxonomic status of the fish has not been determined, there is no known publication of its description, and it has never been classified as a new and distinct species.

2. Clearly, no present threat exists to the snail darter which would justify shortcutting the customary scientific procedures. There has been no systematic or adequate study of the range of this fish. There is, however, scientific opinion that the fish undoubtedly exists elsewhere in the Tennessee River system, unaffected by the Tellico project. In light of this, the statement in the notice that impoundment of Tellico "would result in total destruction of the snail darter's habitat" is in error.

3. Listing the snail darter would not enhance the likelihood that this fish would survive and therefore would not further the purposes of the Endangered Species Act. As a part of the Tellico project, TVA and others already are undertaking a scientifically recognized program to conserve the snail darter.

4. For the foregoing reasons, it is clear that the Endangered Species Act does not require, nor indeed does it even permit, the Secretary's proposed listing. In light of this we do not believe that the Fish and Wildlife Service should inject itself into the long-standing controversy surrounding the wisdom of the Tellico project. Tellico is a lawfully authorized federal project which has been under construction since March 1967. It has been repeatedly funded by Congress, over objections of opponents, and impoundment is presently scheduled for January 1977. Its environmental consequences, including specifically its effect on undescribed species of darters which were thought to be rare and endangered, were fully described and considered in TVA's Environmental Impact Statement for the project. The sufficiency of that statement and the reasonableness of the TVA Board's decision to proceed after enactment of the National Environmental Policy Act has been litigated and upheld by both the United States District Court for the Eastern District of Tennessee and the Sixth Circuit Court of Appeals. Subsequent to such litigation, Congress, with full knowledge of the project's environmental impacts, has continued to appropriate money for completion. In light of this exhaustive review of the project, including specifically a consideration of its effect on possibly rare and endangered species of fish, no worthwhile purpose could possibly be served by listing the snail darter as "endangered" solely because "The proposed impoundment of water behind the proposed Tellico Dam would result in

total destruction of the snail darter's habitat," as stated in your notice. We believe the likely result would be more time-consuming and meritless litigation.

In summary, TVA believes that there is no scientific basis to support listing the snail darter, there is no environmental need for such action, and that nothing positive would be accomplished.

The Director has considered the above comments as well as the appendices accompanying such comments. The Director has also considered other information obtained by the Fish and Wildlife Service subsequent to the proposed rulemaking. The following response to the Tennessee Valley Authority's comments is based on all information available at this time.

1. The original data submitted in the petition to list the snail darter as an endangered species could reasonably be read to suggest that the snail darter was a distinct species in danger of extinction throughout its range. Comments received on the FEDERAL REGISTER notice of March 12, 1975, to review the status of the species, in no way suggested otherwise and provided additional evidence to warrant a proposed rulemaking. Subsequent to the proposed rulemaking, we received additional data in the form of an unpublished manuscript, in which the species was described, further substantiating the validity of the snail darter as a distinct species. The manuscript has been reviewed and accepted by a panel of ichthyologists at the Smithsonian Institution, and approved by them for publication in the *Proceedings of the Biological Society in Washington*. The expected publication date of the description of the snail darter is December 1975, or January 1976.

The Fish and Wildlife Service is proceeding with the formal listing of the snail darter, *Percina (Imostoma) sp.*, as an endangered species because biological evidence indicates that it is a valid species in danger of extinction. The Service acknowledges the lack of a published formal description of the snail darter with the designation of a name-bearing holotype at this time. The Service also recognizes the fact that the snail darter is a living entity which is genetically distinct and reproductively isolated from other fishes. Section 3 (11) of that Act states that "the term 'species' includes any subspecies of fish or wildlife or plants and any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature". The weight of scientific opinion recognizes the snail darter as a distinct species. To delay its listing as endangered until the formalities of a species description and its publication are completed would thwart the purpose of the Endangered Species Act.

2. More than 1,000 collections in recent years and additional earlier collections from central and east Tennessee have not revealed the presence of the snail darter outside the Little Tennessee River. The TVA has conducted numerous fish population studies throughout the Tennessee River Basin since the 1930's, and none of these studies apparently

Title 50—Wildlife and Fisheries

CHAPTER I—UNITED STATES FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

SUBCHAPTER B—TAKING, POSSESSION, TRANSPORTATION, SALE, PURCHASE, BARTER, EXPORTATION, AND IMPORTATION OF WILDLIFE

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

Amendment Listing the Snail Darter as an Endangered Species

Background. On January 20, 1975, Joseph P. Congleton, Zygmunt J. B. Plater, and Hiram G. Hill, Jr., petitioned the Department of the Interior to list the snail darter (*Percina (Imostoma) sp.*) from the Little Tennessee River, as an endangered species according to the expedited emergency procedures of section 4(f) (2) (B) (ii) of the Endangered Species Act of 1973. This petition, and accompanying supportive data, were examined by the Fish and Wildlife Service which determined that sufficient evidence existed to warrant a review of the status of these species. A notice to that effect was placed in the FEDERAL REGISTER on March 10, 1975 (40 FR 11618). Simultaneously, the Governor of Tennessee was notified of the review, and was requested to supply data on the status of the species in his State.

As a result of this review, the Director of the Fish and Wildlife Service found that there are sufficient data to warrant a proposed rulemaking that the snail darter be listed as an endangered species. This proposed rulemaking was published in the FEDERAL REGISTER on June 17, 1975 (40 FR 25597). Interested persons were invited to submit written comments on the proposal to the Director no later than August 18, 1975.

Summary of Comments. Sixteen comments were received. Portions relevant to the biological status of the snail darter are summarized as follows:

yielded specimens of the snail darter. The snail darter was probably more widespread prior to the impoundment of most of the large rivers of east Tennessee, but how widespread is uncertain. Despite all efforts to locate additional snail darter populations in rivers and creeks other than the Little Tennessee River, to date there have been no reported findings.

The Tellico Project, now under construction, would completely inundate the entire range and only known established population of the snail darter. The sponsoring agency offers only opinion rather than specific scientific evidence that the snail darter has been found to exist elsewhere. The agency does not deny that the Tellico project will completely inundate the habitat of the only known established population of the fish.

3. The purposes of the Endangered Species Act of 1973 as stated in Section 2(b) are "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species * * *". The TVA has formulated and begun to implement a program in which snail darters are being transplanted from the Little Tennessee River into the Hiwassee that there may be biological and other River. That the snail darter does not already inhabit the Hiwassee River, despite the fact that the fish has had access to it in the past, is a strong indication that there may be biological and other factors in this river that negate a successful transplant. In addition, the TVA has presented us with little evidence that they have carefully studied the Hiwassee to determine whether or not these biological and other factors exist. The TVA program also does not provide for the conservation of the ecosystem upon which the only known established population of snail darter depends.

4. The TVA's Tellico Project Environmental Impact Statement was finalized prior to the passage of the Endangered Species Act of 1973. While the Statement did include a discussion of the endangered species which might occur in the project area, the snail darter was not discovered until the fall of 1973 and thus was not included in the discussion of endangered species in the Environmental Impact Statement. Also, all litigation of the Tellico project occurred prior to the discovery of the snail darter. In light of the above, we have no evidence to indicate that the Tennessee Valley Authority has given adequate consideration to the snail darter with respect to the Tellico project.

The Service is aware of the Congressional authorization of the Tellico project. In section 2(a) of the Endangered Species Act of 1973, Congress did find and declare that * * * "(1) various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation * * *". The intent of Congress was to insure that en-

dangered and threatened species are conserved, by responsibly integrating the well-being of such species into all Federal actions that could affect them and providing a means whereby such species can continue to exist. This was specified in Section 2(c) of the Act, which states that " * * * it is further declared to be the policy of Congress that all Federal departments and agencies shall utilize their authorities in furtherance of the purposes of this Act". Section 7 of the Act further delineates the responsibilities of all Federal departments and agencies in implementing the Endangered Species Act of 1973.

The Director has considered the above comments as well as the evidence accompanying such comments. The Director has also considered other information obtained by the Service, both before and after the proposed rulemaking. Taken together, the evidence as a whole indicates that the snail darter of the Little Tennessee River should indeed be listed as an endangered species for the reasons discussed hereafter.

Discussion. Section 4 of the Endangered Species Act of 1973 (16 U.S.C. § 1533(a) (1)) establishes the following criteria for determining whether a species should be listed as an endangered species:

- (1) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (2) Overutilization for commercial, sporting, scientific or educational purposes;
- (3) Disease or predation;
- (4) The inadequacy of existing regulatory mechanisms; or
- (5) Other natural or manmade factors affecting its continued existence.

Specifically, with regard to the snail darter, present evidence suggests that only condition (1) is pertinent. Major factors affecting this condition include, but are not limited to, the following:

1. The present or threatened destruction, modification, or curtailment of its habitat or range. The snail darter *Percina (Imostoma)* sp. is known only from portions of gravel shoals in the main

channel of the Little Tennessee River between River Miles 4 and 17 in Loudon County, Tennessee. River Miles 4 and 17 are shown on a map entitled "Tellico Project," prepared by the Tennessee Valley Authority (TVA), Bureau of Water Control Planning, August 1965 (map 65-MS-453 K 501). River Mile 17 is 2 river miles below the U.S. Highway 411 bridge over the Little Tennessee River, and is near Rose Island; River Mile 4 is 1½ miles below Davis Ferry.

In this area the snail darter occurs only in the swifter portions of shoals over clean gravel substrate in cool, low-turbidity water. Food of the snail darter is almost exclusively snails which require a clean gravel substrate for their survival. The proposed impoundment of water behind the proposed Tellico Dam would result in total destruction of the snail darter's habitat.

2. *Overutilization for commercial, sporting, scientific, or educational purposes.* Not applicable.

3. *Disease or predation.* Not applicable.

4. *The inadequacy of existing regulatory mechanisms.* Not applicable.

5. *Other natural or manmade factors affecting its continued existence.* Not applicable.

For the reasons stated above, it is hereby determined that the snail darter (*Percina (Imostoma)* sp.) is an endangered species within the meaning of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543).

Accordingly, Part 17 of Chapter I, Title 50, Code of Federal Regulations, is amended as set forth below, and will be effective on November 10, 1975.

Dated: October 6, 1975.

LYNN A. GREENWALT,
Director,
Fish and Wildlife Service.

1. Amend Section 17.11(i) by adding the following to the list of "Fishes," after the entry for "Darter, Okaloosa; *Etheostoma, okaloosae*":

§ 17.11 Endangered and threatened wildlife.
* * *
(i) * * *

Species			Range		Status	When Listed	Special Rules
Common Name	Scientific Name	Population	Known Distribution	Portion of Range where Threatened or Endangered			
<i>FISHES</i>							
Darter, snail	<i>Percina (Imostoma) sp.</i>	n.a.	U.S.A.: Little Tennessee River, Loudon County, Tennessee.	Entire.	E.	12	n.a.
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